



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,300	03/31/2006	Siegmar Schmidt	STADM-73604	7074
7590		11/07/2007		
John K Fitzgerald				
Fulwider Patton				
Howard Hughes Center				
6060 Center Drive Tenth Floor				
Los Angeles, CA 90045				
			EXAMINER	
			LYONS, MICHAEL A	
			ART UNIT	PAPER NUMBER
			2877	
			MAIL DATE	DELIVERY MODE
			11/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,300

Applicant(s)

SCHMIDT, SIEGMAR

Examiner

Michael A. Lyons

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>081606</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

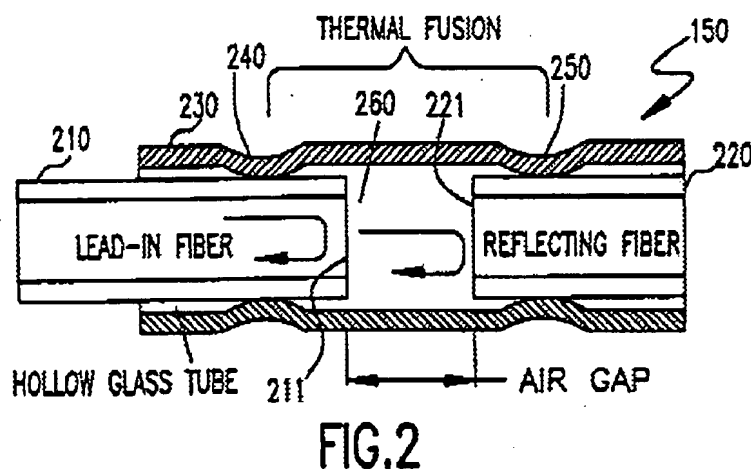
Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6-11, 14, 17-22, and 27-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wang et al (6,069,686).



Regarding claims 1 and 20, Wang (Fig. 2) discloses a device for sensing the pressure of an environment comprising an optical fiber 210 extending through a capillary that is disposed inside tube 230, with a plug 220, with the optical lead-in fiber inserted inside the tube leaving an air gap 260 between the plug and the optical fiber.

As for claim 2, the fiber is fused to the capillary, which is thermally fused to the tube at element number 240 in Figure 2, with the plug fused to the tube at element number 250 in Figure 2.

Art Unit: 2877

As for claims 6-8, see Col. 4, lines 51-62.

As for claims 9-11, end 221 of the plug is totally reflecting.

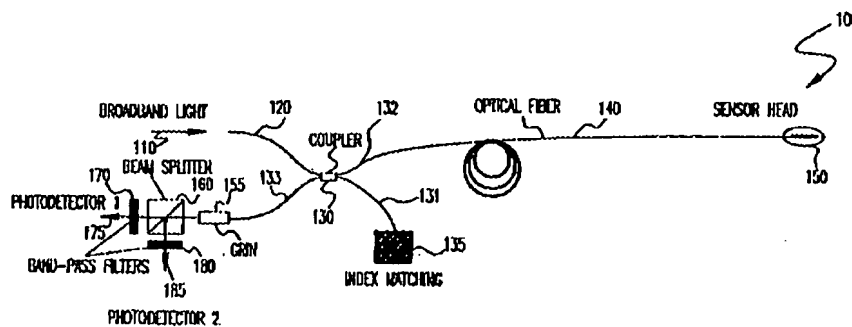
As for claims 14 and 33, end 211 is flat.

As for claim 17, the fiber is single mode (Col. 4, line 10).

As for claim 18, the fiber having a core and a cladding layer would be inherent to the construction of the fiber.

As for claim 19, the device is constructed to provide temperature compensation (Col. 2, lines 39-40).

As for claims 21-22, the material in the gap can be a fluid (Col. 4, lines 56-65).



Regarding claim 27, Wang (Fig. 1) discloses a pressure sensing system comprising a light source 110, a coupler 130, a pressure sensor 150, and analyzing means (not shown in the figure but see Col. 4, lines 40-44) to analyze the signals from photodetectors 175 and 185.

As for claim 28, see Col. 3, lines 52-65.

As for claims 29-30, see Col. 4, lines 40-44.

As for claim 31, see Col. 4, lines 1-3.

As for claim 32, Wang discloses fibers such as 120, 140, 131, 133 for light transmission and communication.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5, 12-13, 15-16, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (6,069,686).

As for claim 3-5, 12-13, and 15-16, Wang discloses the claimed invention as set forth above regarding claim 1 (claims 3-5 and 15-16) and claim 10 (claims 12-13), but fails to set forth the variations of the material used to construct the fiber or the variations of the fiber shapes claimed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the selected materials and construction of the fiber, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

As for claims 23 and 25-26, Wang discloses the claimed invention as set forth regarding claim 20, but fails to disclose an isolator means comprising a bellows or a structure (as per claims 25 and 26, respectively). However, Official Notice is taken as to the well known use of an isolator in the form of a bellows or a common structure in pressure sensing devices, and it would have been obvious to one having ordinary skill in the art at the time the invention was made to add an isolator to the device of Wang, the motivation being that the isolator allows for

Art Unit: 2877

easy control of the pressure within the fiber, enabling easy changes to the operating condition of the device for more accurate results.

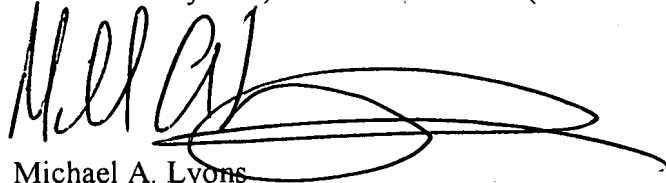
As for claim 24, the material in the gap can be a fluid (Col. 4, lines 56-65).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Lyons whose telephone number is 571-272-2420.

The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Michael A. Lyons", with a large, stylized flourish underneath.

Michael A. Lyons
Patent Examiner
November 5, 2007